Collecting, Analyzing and Interpreting Qualitative Data

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Episode 5 in the Program Evaluation and Improvement Training Series

Presenters
CAPT Armen Thoumaian, Ph.D.
Health Science Officer
Office of Policy, Programs and Integration
Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE)
Silver Spring, Md.

Debra Stark, M.B.A.
Research Scientist
Contract support for DCoE
Arlington, Va.

Patrick High, Dr.P.H.
Epidemiologist
Contract support for DCoE
Arlington, Va.

Destiny Simone Ramjohn, Ph.D.
Research Scientist
Contract support for DCoE
Arlington, Va.

Moderator
Aaron Sawyer, Ph.D.
Research Scientist
Contract support for DCoE
Arlington, Va.

[Video Introduction]

CAPT Thoumaian: Hello. My name is Captain Armen Thoumaian of the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury, or DCoE. Thank you for joining us for another episode in the Program Evaluation and Improvement webinar training series.

DCoE's Mission is to improve the lives of our nation's service members, families and veterans by advancing excellence in psychological health and traumatic brain injury prevention and care.

DCoE accomplishes that mission in coordination with its Centers: the Defense and Veterans Brain Injury Center (or DVBIC), the Deployment Health Clinical Center (or DHCC), and the National Center for Telehealth and Technology (or T2). DCoE and its Centers work closely with one another to promote high-quality prevention and care across the Defense Department. Together, we produce a variety of trainings on subjects ranging from program evaluation to clinical care and prevention practices.

The DCoE Program Evaluation and Improvement training series is designed to increase the capacity of psychological health and traumatic brain injury programs to engage in program evaluation activities.

The trainings in this series are directed toward program administrators and service leadership who are currently involved with or plan to conduct program evaluation activities.

This series contributes to DCoE's larger mission to enhance the quality and effectiveness of psychological health and traumatic brain injury programs by providing training on key activities that may be used to advance program evaluation and improvement efforts.

On behalf of the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury, thank you for participating in this training series.

[Slide 1]

Dr. Sawyer: Hello. My name is Aaron Sawyer. I provide contract support to the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury or DCoE. I will be your moderator for this presentation, Episode 5 in the program evaluation and improvement training series. The webinar is hosted using the Adobe Connect platform, and the technical features are being handled by DCoE's webinar support team in Washington, D.C.

Today's topic is "Collecting, Analyzing and Interpreting Qualitative Data." Before we begin, let's review some details.

[Slide 2]

This presentation has been pre-recorded; however, there will be a live Question-and-Answer session at the end of the presentation.

Throughout the webinar, we encourage you to submit technical or content-related questions using the Question pod located on the left of your screen. You can do this at any time, and our presenters will respond to as many questions as possible during the Q-and-A.

At the bottom of the screen is the Chat pod. Please feel free to identify yourselves to other attendees and to communicate with one another. Time is allotted at the end of the presentation to use the Chat pod for networking.

All audio is provided through the Adobe Connect platform; there is no separate audio dial-in line. Please note there may be delays as the connection catches up with the audio at times. Depending on your network security settings, there may also be some noticeable buffering delays.

Closed captioning is not available for this event.

[Slide 3]

Continuing education credit is not available for this event but may be available for future webinars. Webinar materials from this series are available in the Program Evaluation section of the DCoE website. For information about other DCoE webinars and trainings, visit the Training section of the DCoE website by following the link on slide 3. Slides and other materials are available in the boxes at the bottom of the screen during the webinar.

[Slide 4]

This webinar was introduced by Captain Armen Thoumaian. Captain Thoumaian is the Acting Deputy Chief of Integration for the Office of Policy, Programs and Integration at DCoE. He is a Scientist Director in the Commissioned Corps of the U.S. Public Health Service with more than 30 years of experience in health and mental health program design and evaluation. In January 2012, Captain Thoumaian joined DCoE to help design and implement program evaluation and improvement efforts in the Defense Department. He holds a B.A. in Psychology and Sociology, an M.A. in General Experimental Psychology, and a Ph.D. in Social Welfare and Social Work. Captain Thoumaian completed a National Institute of Mental Health fellowship in Community Mental Health.

[Slide 5]

Our first presenter is Dr. Destiny Simone Ramjohn, a Research Scientist who provides contract support to DCoE. Dr. Ramjohn is a medical sociologist and qualitative researcher with over seven years of program evaluation experience. She has worked extensively to examine the contextual and situational factors associated with health behaviors and methodological challenges in intervention research in domestic and international communities. Dr. Ramjohn has served as a consultant with the Defense Department, Centers for Disease Control and Prevention, New York State Health Foundation and The Commonwealth Fund. She has taught numerous courses on employing qualitative methods within public health evaluation, education and practice. Dr. Ramjohn earned her doctorate in Sociomedical Sciences from Columbia University.

Our next presenter is Ms. Debra Stark, also a Research Scientist who provides contract support to DCoE. Ms. Stark is a survey methodologist and analyst with more than 15 years of research experience. Ms. Stark's work includes program evaluation and monitoring, qualitative data analysis, and survey instrument design. She has worked on health services evaluation projects with several Federal agencies, including the Department of Veterans Affairs and TRICARE Management Activity. Ms. Stark received her M.B.A from Vanderbilt University.

[Slide 6]

Ms. Stark: Our moderator is Dr. Aaron Sawyer. Dr. Sawyer is a Research Scientist who provides contract support to DCoE. He is a clinical psychologist with extensive expertise in intervention outcome research and program evaluation. He has delivered child, family, and adult interventions for more than a decade, including specialization in trauma and experience working with military families. Dr. Sawyer holds an M.S. in Experimental Psychology and a Ph.D. in Clinical Psychology. He completed postdoctoral training at The Kennedy Krieger Institute of Johns Hopkins University and is a Licensed Psychologist.

Dr. Sawyer: Our next presenter is Dr. Patrick High, an epidemiologist providing contract support to DCoE. He has over a decade of experience and expertise in survey design, research methodology and program evaluation. His experience includes supporting the Office of the Undersecretary of Defense for Personnel and Readiness, Operations Research and Safety, and the Defense Suicide Prevention Office as an epidemiologist. Dr. High holds the degree of doctor of public health with specialization in Epidemiology and Biostatistics from the Uniformed Services University of the Health Sciences and previously spent nine years in the Illinois Army National Guard.

[Slide 7]

This training presentation will provide guidance on best practices for collecting, coding, analyzing and understanding qualitative data. Qualitative data include information derived from interviews, observations, focus groups and written comments.

At the conclusion of this webinar, participants will be able to:
- Explain how qualitative data can be used in support of program evaluation and improvement efforts
- Demonstrate knowledge of important considerations for collecting and coding qualitative data
- Implement suggested guidance to begin analyzing qualitative data and integrating with quantitative data
- Identify common challenges that programs face when using qualitative data and also identify resources for technical support

[Slide 8]

As seen on slide 8, the first topic is an introduction to qualitative methods, followed by an examination of qualitative data collection processes, strategies for analyzing and interpreting qualitative data, and a section on reporting qualitative data. Finally, we present common challenges, concluding comments and resources. We will end with an opportunity to provide Feedback and a live Q&A session.

Dr. Ramjohn will begin the presentation, followed by Ms. Stark, another section by Dr. Ramjohn, then Dr. High. I will present common challenges, followed by concluding comments from Captain Thoumaian and the live Q&A.

[Slide 9]

Dr. Ramjohn: Thank you Dr. Sawyer. The content in this portion of the presentation is intended to apply to a wide range of psychological health and traumatic brain injury program managers. This portion of the presentation provides a basic overview of qualitative and mixed methods approaches to program evaluation.

[Slide 10]

The following quote from the book "Informal Sociology: A Casual Introduction to Sociological Thinking" by William Bruce Cameron provides a useful framework for today's presentation on qualitative methods. In his book, Cameron writes: "Not everything that can be counted counts, and not everything that counts can be counted." Indeed, qualitative methods are often used in evaluation because they tell the program's story by capturing and communicating the

participant's stories, which may not always be reduced to a numerical value. Often in program evaluation, we have questions that go beyond the number of participants or rates of participation over time. Qualitative methods are ideal for answering program evaluation questions related to the "hows" and "whys" of the program.

[Slide 11]

Qualitative methods can enhance program evaluation, but what are qualitative methods? Simply put, qualitative methods are forms of data collection and analysis that are based on textual or non-numerical information. These methods, which we will learn more about during today's presentation, may include interviews, focus groups, case studies, field notes, and other written documentation and observations. You have been involved in qualitative data collection and analysis processes without realizing it. Logic model development is one example of a qualitative process that requires interviewing stakeholders, interpreting documents, and putting together a visual representation of a program. Other examples of qualitative techniques that you may already be involved in include written notes about program participants, meeting minutes, or gathering staff feedback.

[Slide 12]

Using qualitative methods in program evaluation has several distinct advantages, several of which are outlined on Slide 12. Using qualitative methods can be especially useful for understanding the meaning, context, and processes of a program. Understanding the meaning of a program to participants could help an evaluator understand the events, situation, and actions of participants as well as how their understandings influence their behavior. Qualitative methods have also long been used for identifying unanticipated phenomena not explained by surveys. Qualitative methods may be used to shed light on unclear findings from surveys or to identify new areas for survey research. Another major strength of qualitative methods is that these methods are often able to reveal the processes that lead to outcomes, processes that survey research is often poor at identifying.

[Slide 13]

Slide 13 presents a practical example of how qualitative methods may enhance and improve program evaluation. Let's suppose that a new program manager is interested in finding out how to improve a program due to declining participation rates and poor satisfaction ratings from participants. The program manager recently conducted a survey which showed that 78% of program participants were "dissatisfied" or "very dissatisfied". The program manager could use qualitative techniques , like interviews or focus groups, to pose important evaluation questions like, "Why are program participants dissatisfied?" or " How do participants think the program's services can be improved?" For example, focus group findings may reveal that participants are not dissatisfied with the program as a whole, but that only one component of the program requires improvement. Interviews may reveal that the stigma associated with attending the program results in program participants declining to attend. It is likely that findings from evaluation questions like these, again findings that contribute to a greater understanding of meaning, context, and process, will result in key program improvements that may not be yielded from a quantitative study alone.

[Slide 14]

There are strong practical reasons to view qualitative evaluation methods as complementary to

quantitative methods. Indeed, using multiple methods can often be better than just one method alone. Knowing the key differences between qualitative and quantitative methods can ensure that the most robust program evaluation is employed. Among the first key differences between qualitative and quantitative methods are the data that is produced. Qualitative methods often generate data that are unique to the program or the participants, while quantitative data is generalizable, or able to be applied to a broader population. Another key difference between qualitative and quantitative data lies in the evaluation questions used for the evaluation. Findings from qualitative methods answer evaluation questions like why or how, whereas quantitative methods answers questions such as how many, when, or where? The data from a qualitative evaluation is generally text based, as the words of participants are recorded, whereas the data from quantitative evaluations like surveys are generally numerical. Finally data collection tools are flexible in qualitative methods, allowing for variations in the study to emerge as new insights are formed. Quantitative data collection tools are generally fixed, and any variation to these tools may compromise the evaluation's findings.

[Slide 15]

In quantitative evaluations there is an emphasis placed on the establishing and reporting on the extent to which conclusions or measurements are well-founded, accurate, or precise. This concept is known as validity, or the extent to which the evidence gathered supports the conclusions being drawn. The methods used for establishing validity when using qualitative evaluation methods are slightly different from those in quantitative studies, and are outlined on this slide 15. There are four dimensions of validity that should be considered when using qualitative methods. These dimensions are credibility, transferability, dependability and confirmability.

Credibility refers to the extent which the data collected accurately reflects the views of the participants, or whether the findings hold true. One tactic evaluator's employ to establish credibility of findings is having participants validate these findings, or what is also known as a "member check".

Transferability refers to the extent to which findings are applicable to other populations and settings. For example, could the lessons learned from focus group findings from a resilience program with newly recruited Soldiers in Oklahoma be compared to newly recruited Sailors in Illinois? One evaluation tactic to establish such transferability would be to meticulously document or provide thick descriptions of contextual information about participants as well as the setting of the evaluation.

Dependability refers to the extent to which data collection and analyses processes are repeatable. Maintaining audit trails, or documenting and accounting for all aspects of the evaluation process and employing multiple methods of data collect may support establishing dependability.

Finally, confirmability is the extent to which data support the findings. The calculation of inter-rater agreements or using multiple evaluations to analyze the data is one tactic that may enhance this dimension of validity in qualitative program evaluation.

[Slide 16]

While qualitative methods may provide useful enhancements to a program evaluation, it is our position that no single method is superior under all conditions encountered. Qualitative

evaluation methods provide a more complete picture than quantitative methods alone, especially with regard to program processes and participant experiences. Qualitative methods help us understand the richness and complexity of psychological health and traumatic brain injury programs,

No method, quantitative or qualitative, is superior to the other. In fact, using a mix of methods in tandem can provide the most complete and robust evaluation findings.

[Slide 17]

Because using mixed methods may enhance the utility of program evaluation, it is useful to present a working definition, which is here presented on Slide 17. The process of mixed methods is one wherein collecting, analyzing and, mixing both quantitative and qualitative data in a single or series of evaluations is used to understand an issue. Mixed methods offset the weaknesses of quantitative and qualitative approaches by drawing upon the strengths of each. Mixed methods may also enhance the credibility of findings, allow for the exploration of different types of evaluation questions, and explain findings generated by each method. Mixed methods allow program evaluators to answers multiple evaluation questions using tailored methods to provide the most complete findings.

[Slide 18]

Slide 18 illustrates the value of using a mixed methods approach to program evaluation. For example, if a program manager were interested in knowing whether a psychological health program was meeting the needs of its target population, a mixed methods evaluation might demonstrate that in a survey while 85% of participants of the programs population were attending the program, only 35% reported that that their needs were met. Following up with focus groups might reveal what specific areas of needs were being unmet as well as the best strategies to address those needs from the participants themselves. This mixed methods evaluation ensures that sound conclusions are drawn for quality improvements and program effectiveness.

[Slide 19]

Once evaluation questions are identified we must make important considerations about which data and in what order our qualitative and quantitative data will be collected and analyzed. Considerations should be made with regard to the timing, emphasis and at what stage the data will be mixed. Slide 19 presents several types of mixed methods approaches to program evaluation.

In a parallel design, quantitative and qualitative data are collected simultaneously and data are merged and compared side by side during the analysis phase.

In a sequential mixed methods design, one data set builds on the other to inform findings. For example, an evaluator might conduct surveys, analyze the results of that survey, and then return to the program participants to conduct a qualitative focus group to use what was learned in the survey to inform the development of qualitative questions not yet answered in the evaluation.

Finally, embedded or nested designs use both methods to answer separate and distinct evaluation questions. Having provided an overview of qualitative and mixed methods

approaches for evaluation studies, as well as the unique enhancement qualitative methods can provide to a program's evaluation I will now turn the presentation over to Ms. Stark who will present techniques for collecting qualitative data.

[Slide 20]

Ms. Stark: Thank you Dr. Ramjohn. Qualitative data can contribute to both the earlier and later stages of larger projects. It can be exploratory, advising what will be relevant for another portion of the project; assist with project planning, and inform how processes should be run; help managers to understand what is happening with regard to a project's implementation—what is really going on—and provide informed data to an evaluation assessment, explaining what happened and why.

[Slide 21]

Choose a qualitative data collection method based on the kinds of data and results you need. Reason backward from your evaluation questions and goals to determine the design that best meets those needs.

Evaluations often contain multiple questions of interest, such as about satisfaction, barriers to care, or about program processes and procedures.
- To understand the beliefs, feelings, and perceptions of a group of people generally requires asking members of that group questions, via an interview or focus group discussion.
- To understand the behaviors of a group of people, select an observation type method.
- To understand the culture of a group, you may need to collect data through a combination of observations and interview discussions.

Whatever your needs, keep evaluation questions simple and focused. Be aware that as you collect and analyze your data, new questions may arise.

[Slide 22]

Protecting program participants from harm during the course of an evaluation is of primary importance. Let potential participants know the topic or purpose of the data collection or interview and the risks of participation in advance, so that they can make an informed decision beforehand about whether they want to participate.

Participants should be told in advance the form of the data collection--if the type of data you wish to obtain will be spoken, or something they need to submit in writing. People should know they might be in a group discussion with other privates, for example, or other families also dealing with post-traumatic stress.

Participants should be told in advance if the session will be audio or video recorded, and whether anyone other than a specific set of persons working on the evaluation will have access to that data. They should be told whether the data will be stored on a password-protected computer, or within a locked environment. State if and when individual responses to questions will be destroyed, typically six months following analyses of the data.

Focus groups involve an additional level of risk or exposure. At the start of a focus group data collection, the moderator asks each person not to repeat what is said in the group. However,

what someone does once the group is over is not under the moderator's control, and cannot be guaranteed.

For all types of qualitative data collections, a consent form is generally used. Check and follow all applicable regulations.

[Slide 23]

Slide 23 displays a chart presented in our earlier webinar on measurement that illustrates the most commonly-used qualitative data collection types. There are other qualitative collection methods; those listed here are the most frequently seen:
- Focus groups are discussions conducted with a group of individuals,
- Interviews are a one-on-one discussion.
- Open-ended comments, which are written forms of qualitative data, are usually created in response to a prompt.
- Observations can be conducted close-up or discreetly.
- An After Action Review is a group review of an event or activity, and
- Case studies involve tracking someone's progress through a process over time.

Naturally, each of these methods has their strengths and limitations. A strength common to all qualitative research is that it allows the evaluator to gain insight.

Interview and focus group discussions allow the evaluator to understand a person's perspective from their own point of view and to take that point of view into account when assessing a situation. Observations and case studies allow the evaluator to look at what people actually do—how they behave—rather than just examine what is planned or stated.

A limitation of focus group data collection is that it lacks the naturalness of observation, since the moderator guides the discussion. After Action Reviews lack the depth that can be achieved through individual interviews.

I discuss more strengths and limitations on the upcoming slides.

[Slide 24]

Focus group discussions are a flexible tool to explore awareness, behavior, concerns, beliefs, motivation and plans related to the particular topic and sub-issues. It is a small discussion group led by someone skilled at bringing out a full discussion of the issues. The moderator guides the discussion in order to identify points of agreement as well as differing views. The structure is relatively free-flowing and interactive. It delves into not just what people think, but why. Use a focus group when you need in-depth insights into why people behave as they do, or to understand the subtleties of a process. Focus group data show the sources of agreement and diversity. Use this when you want the flexibility to pursue reasons, behaviors, or concerns that may be "discovered" during the discussion.

What do you need for this kind of data collection?

To conduct focus groups, you need a moderator who can relate to people easily and listens responsively. You need to know who the participants will be, and where you will find them; you need to have a discussion guide that outlines the questions you will ask; you must have a private meeting space, and you need to determine how the data will be recorded, whether you

will use a note taker or recording device.

The group should have an open, safe and permissive quality and should allow input from people who other group members may not understand. The integrity and dignity of all participants must be respected and valued. Being open and receptive to those whose views differ markedly from yours can be quite challenging. Do not use a 'sensing' session led by someone who outranks participants as a substitute for a focus group: the leader may not be an emotionally 'safe' moderator, and there is generally no formal protocol or discussion guide.

While less expensive than a survey, focus group data collection is often a repetitive process: you conduct groups until you no longer hear any "new" information. It can be hard to know when to stop!

[Slide 25]

Interviews are another way to collect qualitative data. This involves a single interviewer and a single respondent at a time. The depth that an individual interview allows means that you can explore a topic in a great level of detail. This method is often used when the subject matter is complex and the respondent is particularly knowledgeable on that topic. In some instances, this person may be known as a "key informant," since they offer specific expertise.

A strength of this method is that it provides the utmost in flexibility: the interviewer can immediately respond to emerging data, that is, something you did not expect to hear. The interviewer is able to probe for specific follow up. The discussion guide may be altered following each interview, in response to what you learn. There is no group interaction involved, so choose this method when group interaction is likely to be a limiting factor, such as when peer pressure or rank would inhibit responses.

Interviews can be done quickly and inexpensively, and do not have to be conducted in-person. Be aware that it can be difficult to get a key informant's time—they are usually very busy people.

Like other qualitative data collection, data obtained through a one-on-one discussion can help you understand not just what a person thinks, but why they think the way they do. However, each individual interview represents but one person's opinions. And, the subject may tell the interviewer what they think the interviewer wants to hear.

[Slide 26]

Open-ended comments are written in response to what are known as open-ended prompts, such as "Use this area if you would like to say more," or "do you have any suggestions?", or simply the directive, "Explain." The free-text response area allows the respondent to communicate their thoughts, feelings, and suggestions in written form. They may be collected through a survey, or retrieved from a blog discussion, Facebook page, or obtained on a feedback form, such as the Interactive Customer Evaluation or ICE comment card with which many of you are familiar. Because of the personal effort a participant put forward to convey this data, it is important to look at it closely.

There are important strengths to using open-ended comments. This is a very powerful form of communication since it is voluntary. If someone takes the time to write, it is often because the subject is significant or important to them. Another advantage: You have the respondent's exact words, which a note taker in a focus group may not quite capture.

A limitation to using open-ended comments is that individual comments may be over-interpreted or over-generalized. You may hear only from the dissatisfied person who has a concern, and not from any of the other individuals who had no issues at all. The person's comment may pertain to what they wish to express, and not necessarily to the specific topic of interest to the evaluator. Due to the anonymous nature of the data collection, you cannot go back and ask follow up questions, as you can within a focus group or interview discussion.

[Slide 27]

Observation: in many ways, this is the most direct way to measure actual behavior—what people do rather than what they say they do. The observation can be in-person or mechanically recorded, can be "open" or hidden. This method:
- Is used when there is a need to understand how people actually behave in realistic settings,
- Does not rely on self-reported attitudes, and
- Often uses a checklist to ensure uniform data collection.

A strength of this method is that actual behaviors and responses to an event or situation are captured. In self-reports, people often express what they believe to be the "proper" or "right" answer rather than the "true" answer that might reflect poorly on them. A limitation of this method is that it cannot be used to measure thoughts or preferences, and it may be difficult for the observer to document quotes accurately. Also, people who are aware that they are being observed may be on their "best" behavior.

[Slide 28]

After Action Reviews. Some of you may be familiar with After Action Reviews: In these Post-event debriefing discussions, or "hotwashes,"
- The group meets to discuss impressions of how the event or activity actually occurred in real-time.
- They summarize and discuss the most important points,
- They generally focus on strengths and weaknesses, and
- They are often time-limited or constrained.
- The meeting notes serve as the basis for a report and analysis

A strength of this method is that several observers are available—one person may note what another has missed. It is generally efficient and effective.

A limitation of this method is lack of nuance. Subtlety may be missed in the rush of time. Group-think—whereby important data are ignored—may occur when people are anxious to achieve consensus.

[Slide 29]

Case Studies follow what happens to person or a few people over time. They allow for in-depth, detailed account of important experiences of a specific person, and they generally present the story of someone who is key in terms of population or process.

Case studies put a human face onto a condition or process that previously, may have been understood only in the abstract. This method is especially compelling when seeking to convey

the importance of an intervention or activity to others. In psychology, for example, entire theories have been built from case studies. You will notice that many news stories open with a case study or illustration of one person's story.

This method, and other qualitative data collection methods, can yield data to aid evaluation, decision-making and action planning efforts.

I turn the presentation back to Dr. Ramjohn, who will discuss analyzing and interpreting qualitative data.

[Slide 30]

Dr. Ramjohn: Thank you, Ms. Stark. As was mentioned in the previous section there are a myriad of ways to gather qualitative information, including focus groups and interviews. It has also been mentioned that the amount of data gathered from qualitative data collection may be large. For example, a one hour focus group with seven participants could result in a transcript of over 100 pages. Analyzing these pages of text can be time consuming or overwhelming. The purpose of this section is to provide an overview of the steps involved in qualitative data analysis to help program managers get from qualitative information to evaluation findings. In the previous section, we learned about the wide range of methods used to collect qualitative information.

[Slide 31]

Qualitative evaluation findings provide rich information that illuminates the stories behind the numbers. As you move into analysis, it is important to keep focusing, re-focusing and refining the analytic process so that it is manageable and truly addresses the questions and issues you identified at the outset of the evaluation. As was discussed in a previous section, qualitative information can provide explanations for unexpected findings from quantitative studies. When used appropriately, qualitative findings may also suggest additional questions for a quantitative evaluation. The next series of slides will outline the key steps of the qualitative data analysis process.

[Slide 32]

The qualitative data analysis process is ultimately one of interpretation, which involves reading the data, developing ways to label or code the data, and describing those interpretations using visual displays. Outlined on slide 32 are the typical steps involved in the qualitative data analysis process. When an evaluator begins to organizing qualitative data, first the data are read multiple times followed by creating a list of labels, or codes to represent the observed information.

Next those codes are finalized and a list of those codes is created. The codes are then applied systematically to the entire data set. Finally the evaluator may create a visual display of findings and communicate or disseminate the findings in a written report. I will now move into the specific tasks involved in each of these steps.

[Slide 33]

The first step in the qualitative data analysis process is to read the data you have collected. There are multiple ways to read the data including literal, interpretative, and reflexive reading.

During literal reading, the evaluator focuses on the actual content of the data, whereas during interpretative reading the evaluator attempts to make sense of participant statements. Interpretation is the evaluator's ability to think abstractly and to begin identifying patterns in the data even as early as the first read. For example, what similar statements are participants from across all of the focus groups making? Do make line leaders and more senior leaders make the same statements about the program? Do male enlisted Service members make the same statements that female officers make about barriers to program participation? Finally, reflexive reading examines the evaluator role or biases in collecting the information to ensure that findings are not unduly influenced. Keep in mind that qualitative data is read and re-read multiple times during each of the steps of the analysis process.

[Slide 34]

As the data is read and re-read several times, common themes may begin to emerge. Codes are a way of classifying the data into meaningful relevant categories. In addition to writing notes on codes, you may also write notes or jottings about mental notes to purse an issue further or new thoughts about what a participant is actually saying. There is no finite rule on the number of codes that should be created. Some qualitative evaluations have many codes with very specific definitions, while others evaluations have few codes with broad definitions. Whether your codes are specific or broad depends on the nature of your evaluation questions as well as other considerations, like the evaluation timeline. You should also consider that whether few codes are developed or many, the purpose of the evaluation should always be of the utmost concern. Codes should always be guided by your evaluation questions. Ultimately, your codes should not be developed based on what is interesting. Instead you should focus on what codes will be useful to answering your evaluation questions.

[Slide 35]

Once the initial list of codes is created, the next step is to create a codebook to document the total number of categories that are emerging from the data. A codebook maps the relationship between the raw data, themes, and key questions guiding your evaluation. The level of detail presented in the codebook will vary by project or by evaluation, but at the very least the codebook should contain the code name, definition, as well as inclusion and exclusion criteria. It may also be useful to include sample text; for example how the code is correctly applied to the data.

[Slide 36]

Here is a sample excerpt of a codebook from an evaluation of health service utilization using focus groups. There are three codes displayed on slide 36, but I will only discuss the code for stigma. In reading and reading the focus groups, a common theme of stigma emerged when reading responses of why service members did not attend mental health clinic hours. Many service members described a fear of being identified or labeled as crazy, while others felt that attending the clinic hours would result in a loss of security clearance. Based on these reading the code name stigma was given to service member's descriptions of the stigma that exists within the military mental health system. As is demonstrated on Slide 36, the code was applied to all blocks of text where service members discussed stigma when seeking help for mental health issues within the military health systems and not applied when discussing stigma in the civilian health system. The sample text, which is pulled directly from sample focus groups data reads, "I'm afraid I might lose my secret clearance if I seek help" and is a good illustration of when to apply this code to text.

[Slide 37]

The next step in the process is to finalize the code list by applying the code to the entire data set. This is accomplished by reading and re-reading the data until no new themes emerge. During this step in the process codes may be refined, expanded or eliminated to reflect a most updated list an new thoughts about what is being said by participants. Although new patterns may continue to emerge in the data, even at the latest stages, a final end date should be set in advance to meet reporting deadlines.

Evaluators may establish credibility by linking data to codes through a process of documenting quotes from multiple participants that support the evaluator's interpretations. For example, focus groups of male and females officers were held to determine the quality of a resilience program and identified similar themes like: limited availability, positive cohesion, and improved command climate.

Consideration should also be given to whether the themes are different enough from one another to warrant their own unique code and whether all of the variations in the focus groups or interviews are captured by the codes we have created. Once the final adjustments are made to the codebook, an evaluator may want to examine whether another person could use these same categories to code the responses in the same way. This process is known as intercoder agreement.

[Slide 38]

Inter-coder agreement is the extent to which independent coders evaluate data or blocks of text and reach the same conclusion. Ideally, two independent raters or coders would code the same blocks of text and then compare their codes and how they applied codes with one another. Generally, two coders working separately should agree on the definitions and apply the codes in the same systematic fashion. Establishing intercoder agreement is not always feasible, particularly when there is an only a single evaluator. When multiple coders are not possible, a single evaluator could confirm findings using strategies like formulating and testing "If/then" statements to determine if the interpretation of findings is consistent across different types of data.

[Slide 39]

Examining relationships is the centerpiece of the qualitative analytic process, because it allows the evaluator to move from simple description of the people and settings involved in data collection to explanations of why things happened as they did with those people in that setting. The process of examining relationships can be captured in a diagram that shows how different concepts are connected, or perhaps what causes are linked with what effects. One way to visually present this information is to use a network diagram, which presents linkages between categories, variables or events over time.

Slide 39 provides an example of a network diagram. A network diagram can provide a means of viewing the full data set in the same location which may support the arrangement of data in a coherent manner. One additional benefit is that network diagrams allow for comparison and identification of patterns, themes, and trends in the complete data set. The qualitative question guiding the evaluation for the network diagram presented on slide 39 was: "What are the

barriers to mental health care seeking among service members in the Air National Guard?" Findings from the evaluation indicate two key barriers to mental health care seeking: stigma and negative experiences. Stigma from family, leadership, and career concerns as well as direct and indirect negative experiences contribute to service members not seeking care. Findings should also be tied to the larger impact that these barriers have on key outcomes, such as how lack of care seeking may impact military readiness.

[Slide 40]

Writing up qualitative evaluation findings requires a clear analytic story with the logic spelled out, a sense of what parts of the narrative the evaluator wants to convey, and a detailed outline that includes "bridging statements". A good rule of thumb is to use the hour glass method, with a broad introduction, followed by a statement of the specific problem definition and literature review.

Next a more specific description of methods and results should be provided. Finally, a closing statement which chronicles the broader discussion and implications of the evaluation's findings should be presented. I will now turn the presentation over to Dr. High, who will offer additional details on writing up the results of qualitative and mixed methods findings.

[Slide 41]

Dr. High: Thank you Dr. Ramjohn. In this section I will only be providing an overview of reporting on qualitative data. Our next webinar will provide a more in depth review of writing reports.

[Slide 42]

Whenever a program evaluation is conducted the results of the evaluation should be articulated either in writing or via a presentation to stakeholders. It would also be helpful to provide the findings to program staff as it will potentially help with staff buy-in should policies and/or procedures need to be changed within the program.

When reporting results to stakeholders you should:
- Demonstrate the importance of the program and its benefit to the community, participants and the service or DoD
- Provide accountability on how funds were spent and what services were provided and any modifications that were made relevant to the funding sources
- Use the report as an opportunity to generate additional support and buy-in for the program, especially if buy-in was not as strong as it could have been at the time of program inception or when adjustments were being made to the program
- Finally, inform the stakeholders about plans to improve the quality of the program and how program participant outcomes will be improved

[Slide 43]

Qualitative data can include:
- Participant experiences obtained from participant focus group(s) and their recommendations to improve participation and satisfaction, as well as
- Responses to open ended questions contained on program feedback forms are but two examples.

When reporting on qualitative findings (otherwise known as results) you should be sure to:
- Present your findings using graphs, tables, diagrams and key quotes that help tell a story
- Interpret your findings and draw conclusions. Rarely is a report submitted without an interpretation of the results being provided and conclusions having been drawn from the information.
- Support all conclusions with evidence through clear, consistent use of data (for example, use numbers and quotes as needed).
- Identify how the results may affect policy and/or practices within the program and/or beyond the program.
- If references were used during the report, cite them where applicable and include them at the end of the report.

[Slide 44]

Slide 44 provides an example of how to integrate qualitative and quantitative data into a final report. As you can see, the program was asked to provide financial information for staff and supplies. Staff dollars were provided but the amount spent was less than that which was budgeted, awarded and funded. No money was budgeted, awarded/funded or spent for supplies.

When an interview was conducted with the Program Administrator, it was discovered the reduction in staff spending was because a more senior staff member retired and was replaced by a junior staff member, which accounts for less money being spent on the staff category.

It was also discovered during the interview that the program does not budget or request funding for supplies because only surplus funds are available and they become available at the end of the fiscal year. At that time, the program provides a list of the needed supplies and total dollar amounts and competes for funding to obtain the supplies.

When writing the final report, the staff resources and the process for obtaining supplies would be described. Additionally, a recommendation that the program receive specific funding dollars to purchase needed supplies should be proposed.

[Slide 45]

Slide 45 presents another example of how qualitative information obtained during the evaluation may be used during the reporting process.

During the evaluation, the program staff and stakeholders were each asked if they were aware of the program's mission statement, goals and objectives.

Interviews conducted with the stakeholders indicated that not all stakeholders could articulate the program's mission and goals.

When a focus group was conducted with program staff, not all staff were aware of the program's specific goals. In fact, one member of the staff even commented, "I'm not sure what the goals of the program are."

The lack of staff and stakeholder familiarity with the program's mission and goals and the quote

from the staff member should be used in the evaluation report for the program. This information would support a recommendation that the program may need to distribute the mission, goals and objectives to the program staff and review them periodically to ensure consistency within the program.

[Slide 46]

Reports should tell a story about the program and should generally include the items listed on slide 46.

The Executive Summary should be written last and contain only the key points of the report and should strive to be no more than half a page.

The more narrative section of the report will be the Program Overview. The program overview should include the program's mission statement, goals and objectives. A brief discussion is needed as to: what the program needs to operate (inputs), what the program does (activities) and what the program strives to change or improve for program participants (outputs and outcomes).

Next, a review of the methods used to conduct the evaluation should be included. This is not a detailed review of the evaluation process but rather a summary that can give the reader a basic understanding of how the evaluation was conducted and how the results were obtained.

The results and conclusion section of the report should discuss what was found from conducting the evaluation. This should also include what the program is doing well and what the program can improve upon. Be sure to use quotes to support your conclusions if possible.

References and appendices should be included in the report if external sources were used during the evaluation process. External sources may include interviews, external data, or literature published in peer reviewed journals as examples.

Appendices are necessary if additional information specific to the evaluation cannot be included in the main sections of the report. Appendices should only be included when essential.

[Slide 47]

Dr. Sawyer: Thank you Dr. High. There are a number of challenges that arise when evaluators use qualitative methods in program evaluation and improvement efforts.

[Slide 48]

Several of these challenges are specific to military populations and contexts.

First, service members may not be forthcoming in groups that include individuals with higher rank. Military culture is such that service members are often hesitant to express criticism or discuss their challenges openly in front of commanding officers. As such, moderators, interviewers and participants should all be selected carefully.

Second, because qualitative data contain such rich information, it is generally easier to identify participants than with quantitative data. Consequently, evaluators must be cautious about how they store and share information to avoid negatively influencing a participant's career or creating

grounds for discrimination.

Third, service members are busy, and qualitative data collection activities can be time-consuming. It is important to communicate the reasoning and value behind data collection in order to justify their time. It is also advisable to adapt to participants' schedules when possible and to ensure that time is used efficiently.

Last, many, if not most, stakeholders have limited experience with qualitative methods. Therefore, they may be uncomfortable with them and have misperceptions about their value. We believe that qualitative methods can add a great deal to an evaluation and that they are worth pursuing in many cases. If you choose to use qualitative methods, it is important that you put in the time and effort to explain them to stakeholders and persuade them that these methods are of value.

[Slide 49]

As with any evaluation methodology, qualitative methods are susceptible to threats to maintaining data validity. The following practices help to guard against such threats and to ensure that the data are as accurate and useful as possible.

First, select participants who represent the population to which you wish to apply your findings. If the people providing your data don't have the same experiences or characteristics as the people you want to talk about, then your results will be off target.

Second, in general, you should focus analysis and interpretation on re-occurring themes that emerge from the data. Rare occurrences might be very interesting, but they may not reflect the experiences that are common among your participants.

Third, use the data to ground your results in reality. Qualitative data can often be expressed by summarizing themes and using key quotes to let your audience know what the participants are saying that leads the evaluator to make a conclusion.

Fourth, document data collection and analysis procedures. This ensures that the procedures can be reproduced and that anyone who reviews the results will know how the data and results were derived.

Fifth, it is a good idea to check interpretations with participants to see whether the evaluator is truly understanding what they are trying to get across.

Finally, it is also advisable to use multiple evaluators to check for agreement on interpretations.

[Slide 50]

On slide 50, we have listed a few common challenges we have encountered frequently in our interactions with program managers and staff who are involved with evaluations.

[Slide 51]

Among the most common concerns we hear is "My staff lack the resources, such as time, training and materials, to collect and analyze qualitative data."

Regardless of the methods used, program evaluation represents an important investment in a program's future. Without program evaluation, a program will be unable to determine how well it is performing or to make improvements.

Qualitative methods do not need to be overly complex or time-consuming. Some methods are conducted infrequently, such as focus groups and formal interviews; other methods are more frequent but can be accomplished with minimal time and costs, such as comment cards.

Also, program evaluation results can be used to refine a program and make it more efficient, so effort expended up front may serve to free up resources later on.

Finally, many materials and training opportunities are relatively cheap. They may be accessed through colleagues, universities, federal agencies, and through the resources provided at the end of this presentation.

[Slide 52]

On slide 52, another common concern we hear is, "How do I handle intense emotional responses that may occur during qualitative data collection?"

Qualitative methods draw out responses from participants that are difficult to gather otherwise, but evaluators should be aware of risks and have a plan for dealing with them.

Those collecting data may encounter statements from participants about their medical and psychological health, thoughts about suicide or harming others, intense frustration, relationship problems, and possibly child or spousal abuse.

Having a plan in place for dealing with such statements means having standard operating procedures, or SOPs, and ensuring staff are effectively trained and supervised. Standard operating procedures should make clear when confidentiality should be broken, what to do in emergencies, how reports should be made, and referral resources for participants reporting concerns. The specifics of these procedures will vary greatly from setting to setting, and it is often necessary to consult with your leadership to ensure they are in line with all ethical and legal regulations.

[Slide 53]

Another frequent question is, "How can I use qualitative methods to improve my program?"

Qualitative methods are incredibly useful in improving programs, because they provide rich information about participants' experiences with program staff and practices. These methods can assist program personnel in modifying a program to better fit the context or population. Likewise, qualitative methods are useful in identifying and overcoming challenges with respect to participation barriers, low satisfaction or poor results. They can also be used to gather feedback from staff and stakeholders about their ideas for program improvement.

The number of real-life examples in which qualitative methods have resulted in program improvements is considerable. However, we will provide only a few examples here.

For one, there are several instances in which low participation in traditional clinic-based psychological health and traumatic brain injury programs has been addressed by providing

services on-site. These adaptations would not have been possible without hearing directly from service members their reasons for not participating in traditional care.

As another example, many clinical and non-clinical programs have addressed stigma by using different language to describe their target population and the needs they address. For example, the term "customer" has been used in place of "patient" in an attempt to be more empowering.

As a third and final example, qualitative methods have been used to identify barriers that are sometimes created when programs intended to build resilience unintentionally lead service members to believe they are immune from common issues related to their service, such as depression, traumatic brain injuries and posttraumatic stress.

[Slide 54]

CAPT Thoumaian: Thank you, Dr. Sawyer, Dr. Ramjohn, Ms. Stark and Dr. High.

You've heard a great deal today about qualitative methods and their uses in program evaluation and improvement efforts. We believe these methods are an important part of building a culture of effectiveness in the Defense Department's system of prevention and care for psychological health and traumatic brain injuries.

[Slide 55]

A key takeaway is that qualitative methods produce a rich source of information about how a program operates and how it affects its participants. As such, qualitative methods can be an important addition to program evaluation activities.

Second, qualitative and quantitative methods are often complementary and have unique strengths. As we have mentioned, qualitative data provide depth that cannot be achieved through quantitative methods alone. Quantitative data, on the other hand, offer consistent ways to analyze programs and obtain results that can often be compared across different programs.

Finally, qualitative data can be especially helpful in designing program improvements that are specifically tailored to participants' needs and staff capabilities.

I hope you will continue to attend these presentations and inform your colleagues about our training opportunities. Please also consult the Program Evaluation Guide and other resource materials on the DCoE website.

[Slide 56 - 58]

Dr. Sawyer: Thank you Captain Thoumaian. There is a great deal of useful information available to programs on qualitative data collection methods, how-to conduct focus groups and interviews, and ways to analyze and interpret results. On slides 56, 57 and 58, we provide a brief list of key resources and references that we think may be useful.